DEPARTMENT of ENVIRONMENTAL SERVICES Water Division - Watershed Management Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: STILLWATER POND, LOWER	Lake Area (ha):	5.66
Town: MARLOW	Maximum depth (m):	6.1
County: Cheshire	Mean depth (m):	1.3
River Basin: Connecticut	Volume (m³):	74000
Latitude: 43°05'04" N	Relative depth:	2.3
Longitude: 72°12'41" W	Shore configuration:	2.82
Elevation (ft): 1090	Areal water load (m/yr)	:
Shore length (m): 2375	Flushing rate (yr ⁻):	
Watershed area (ha):	P retention coeff.:	
<pre>% watershed ponded:</pre>	Lake type:	natural

BIOLOGICAL:	10 August 1998
DOM. PHYTOPLANKTON (% TOTAL) #1	DINOBRYON 75%
#2	ASTERIONELLA 15%
#3	
PHYTOPLANKTON ABUNDANCE (units/mL)	
CHLOROPHYLL-A (µg/L)	18.19
DOM. ZOOPLANKTON (% TOTAL) #1	KERATELLA 54%
#2	NAUPLIUS LARVA 18%
#3	POLYARTHRA 11%
ROTIFERS/LITER	155
MICROCRUSTACEA/LITER	61
ZOOPLANKTON ABUNDANCE (#/L)	224
VASCULAR PLANT ABUNDANCE	Abundant
SECCHI DISK TRANSPARENCY (m)	1.7
BOTTOM DISSOLVED OXYGEN (mg/L)	0.2
BACTERIA (E. coli, #/100 ml) #1	5
#2	
#3	

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 2.7 Hypolimnion volume (m^3) : 1675 Anoxic volume (m^3) : 10050

CHEMICAL:	STILLWATER PO MARLOW	ND, LOWER	
	10 August 1998		
DEPTH (m)	1.5	3.0	
pH (units)	6.0	5.8	
A.N.C. (Alkalinity)	3.0	6.1	
NITRATE NITROGEN	< 0.05	< 0.05	
TOTAL KJELDAHL NITROGEN	0.40	0.50	
TOTAL PHOSPHORUS	0.020	0.032	
CONDUCTIVITY (µmhos/cm)	38.3	33.4	
APPARENT COLOR (cpu)	65	120	
MAGNESIUM	0.48		
CALCIUM	1.7		
SODIUM	4.5		
POTASSIUM	< 0.40		
CHLORIDE	6	3	
SULFATE	3	2	
TŃ : TP	20	16	
CALCITE SATURATION INDEX	4.6		

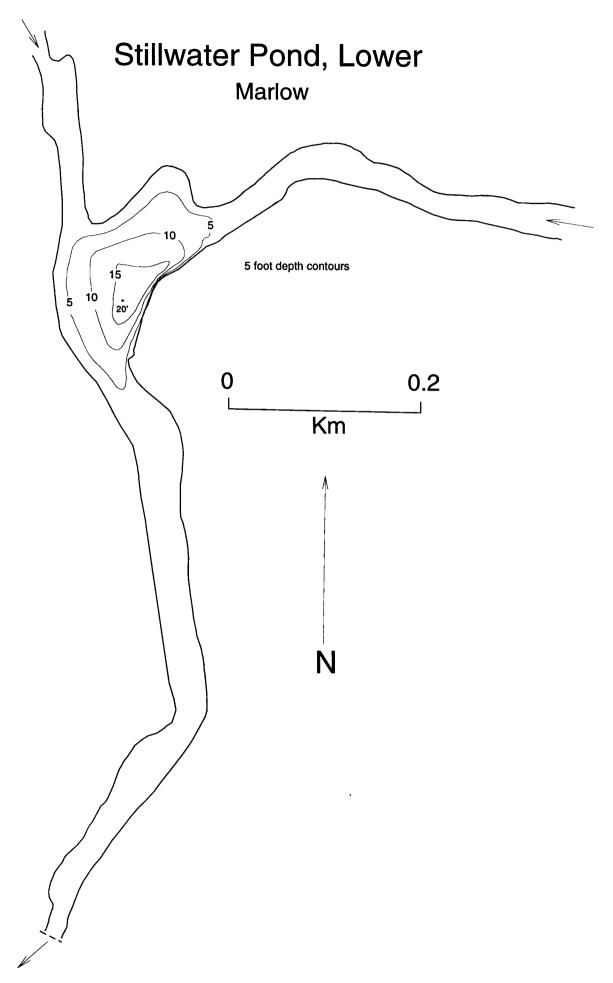
All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1998

D.O.	s.D.	PLANT	CHL	TOTAL	CLASS
4	4	5	4	17	Eutro.

COMMENTS:

- 1. This is a small, deep spot in the Ashuelot River where Grassy Brook enters the river; it is not considered a pond in the DES lakes database.
- 2. No winter samples were collected due to dangerous ice conditions.
- 3. This is a moderately acidic, tea-colored, eutrophic pond. The pond received approximately equal trophic points from all four trophic indicators: low bottom dissolved oxygen, moderately poor water clarity, abundant rooted plant growth and more than desirable chlorophyll levels.



FIELD DATA SHEET

LAKE: STILLWATER POND, LOWER TOWN: MARLOW

DATE: 08/10/1998 WEATHER: OVERCAST & WARM

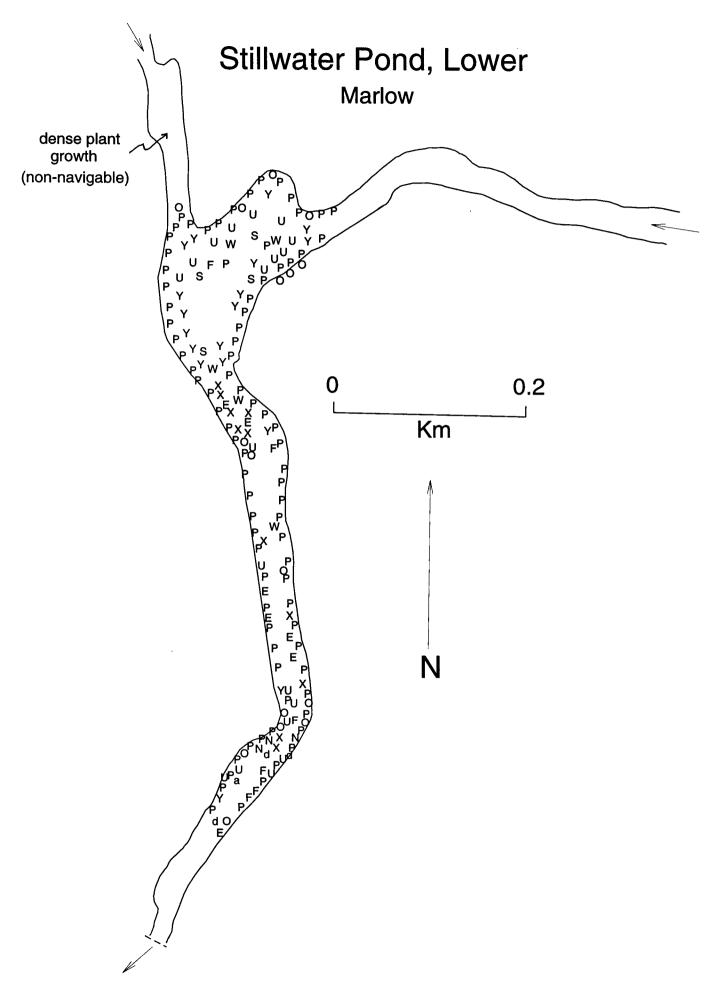
DEPTH (M)	TEMP (°C)	*DISSOLVED OXYGEN	OXYGEN SATURATION	
0.1	24.0	7.0	82 %	
1.0	22.7	6.5	74 %	
2.0	20.8	3.1	34 %	
3.0	17.2	0.2	2 %	
4.0	14.6	0.2	2 %	
5.0	13.6	0.2	2 %	
			· · · · · · · · · · · · · · · · · · ·	

SECCHI DISK (m): 1.7 COMMENTS:

BOTTOM DEPTH (m): 5.1

TIME:

*Dissolved oxygen values are in mg/L



AQUATIC PLANT SURVEY

DATE: 08/10/1998 LAKE: STILLWATER POND, LOWER TOWN: MARLOW PLANT NAME ABUNDANCE Key GENERIC COMMON Р Pontederia cordata Pickerelweed Abundant U Utricularia Bladderwort Common F Nymphoides cordatum Floating heart Scattered Е Eriocaulon septangulare Pipewort Scattered 0 Cephalanthus occidentalis Buttonbush Scattered N Nymphaea White water lily Scattered Y Nuphar Yellow water lily Common W Potamogeton Pondweed Scattered S Sparganium Bur reed Sparse X Scat/Common Sterile thread-like leaf Arrow arum Sparse а Peltandra virginica d Dulichium arundinaceum Three-way sedge Sparse

OVERALL ABUNDANCE: Abundant

GENERAL OBSERVATIONS:

- 1. Had to pull the canoe through several areas of dense macrophyte growth to reach the open water pool.
- 2. The northwest inlet (Grassy Brook) was non-navigable due to dense plant growth.